WEST Search History

09/871,067

DATE: Wednesday, March 19, 2003

Set Name Query	Hit Count	Set Name
side by side		result set

DB=USPT,PGPB; PLUR=NO; OP=OR

Set Name	Query	Hit Count	Set Name
L33	L31 and crystal$	1	L33
L32	L31 and ferro$	1	L32
L31	L30 and L7	1	L31
L30	(alter$ near3 distance) with electrodes	100	L30
L29	L27 and ((359/326 |359/327 |359/328 |359/329 |359/330 |359/331 |359/332)!.CCLS.)	0	L29
L28	L27 and L7	0	L28
L27	L26 or L25	336	L27
L26	(alter$ near3 spacing) with electrodes	126	L26
L25	(chang$ near3 spacing) with electrodes	214	L25
L24	l21 and (ferroelectric$ same electrodes)	11	L24
L23	l21 and ferroelectric$	17	L23
L22	L21 and L7	4	L22
L21	(chang$ near3 distance) with electrodes	459	L21
L20	5387998.pn. and electrode$1	0	L20
L19	L18 and L8	11	L19
L18	L17 or L16	48112	L18
L17	2nd adj3 region	76	L17
L16	second adj3 region	48065	L16
L15	L14 and L11	2	L15
L14	6529309.pn. or 5652674.pn.	2	L14
L13	L12 not L6	6	L13
L12	L11 and L8	7	L12
L11	L10 or L9	33661	L11
L10	(1st adj3 voltage) with (2nd adj3 voltage)	12	L10
L9	(first adj3 voltage) with (second adj3 voltage)	33654	L9
L8	L7 and ((359/326 |359/327 |359/328 |359/329 |359/330 |359/331 |359/332)!.CCLS.)	122	L8
L7	(polarization near3 inver$) or (domain$ near3 inver$)	3122	L7

DB=USPT,PGPB,JPAB,EPAB; PLUR=NO; OP=OR

Set Name	Query	Hit Count	Set Name
L6	L5 and L3	1	L6
L5	(chang$ near3 distance) same voltage	1858	L5
L4	chang$ near3 distance	36023	L4
L3	L2 and L1	132	L3

L3	L2 and L1	132	L3
L2	(first adj3 voltage) with (second adj3 voltage)	37094	L2
L1	(polarization near3 inver$) or (domain$ near3 inver$)	3948	L1

END OF SEARCH HISTORY

WEST

End of Result Set

☐ | Generate Collection | Print |

L31: Entry 1 of 1   File: USPT   Dec 2, 1980

DOCUMENT-IDENTIFIER: US 4236785 A
TITLE: Non linear thin layer optical device

Detailed Description Text (10):
The third step is shown at (d). It involves the production of the network of FIG. 3. After having removed the electrodes 7 and 8, a set of electrodes 9 and 10 in the form of crenels, of which the spacing is equal to the length of coherence of the guide, is deposited on the substrate 3. The value of the length of coherence may be obtained either empirically or by calculation. It is approximately 5 .mu.m for the selected example. The distance between the electrodes is alternately equal to d, which may be selected equal to the width of the guide, and D which is considerably greater. A voltage V.sub.1 opposite in polarity to V.sub.o is applied between the electrodes 9 and 10 so that the electrical field V.sub.1 /d Is sufficient to invert the direction of polarisation of the domains, the field V.sub.1 /D being two weak to effect the inversion. After suppression of the voltage V.sub.1, there are obtained zones of length L.sub.c : I, II, III, . . . , in which the domains are alternately oriented in the direction x (II, IV, VI) and in the direction x' opposite to x (I, III, V), so that the coefficient .chi..sub.NL is alternately positive and negative, whilst retaining the same value .chi..sub.33. The electrodes are formed by masking processes similar to those used for the production of semi-conductors. The precision is about 0.1 .mu.m over a length of as much as 5 cm. The number of zones may thus be very considerable. Because of the difficulty to know the exact value of the coherence length, it may be preferable to form several sets of electrodes differing in their spacing and to determine which set produces the best quasi phase matching by measuring the harmonic power generated. In this case, too, the inversion of polarisation takes place at a temperature slightly below the Curie temperature. The temperature may be reduced providing the voltage V.sub.1 is increased. The exact value of the voltage V.sub.1 is experimentally determined because, by means of optical processes using polarised light, it is possible to observe the inversion of the domain polarisations.